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VALUE FOR MONEY IN MEDICINE

One of the things that modern society seems to have done to medicine is to introduce the concept of value for money. In other words, instead of asking whether something the doctor does is going to relieve human suffering or make life more tolerable in this world, there is a school of thought which not only asks what the economic return for his action is but also seeks to justify any expenditure on medical services by the economic return to the community. Now it is clear that since this world's goods are in limited supply, even to powerful governments, there must be limits to medical services and it is therefore right that the economist should seek to assess the value of these services. However, when the primary argument for a medical service is that it will save somebody money, then something seems to have gone wrong with human values.

One of the arguments for the setting up of the National Health Service in Britain was that increased expenditure on health services would be a sound economic investment because it would increase production and because, by reducing ill-health, it would decrease the cost of medical services. These are the arguments which two British economists, John and Sylvia Jewkes, attacked vigorously in their brochure "Value for Money in Medicine", published recently by Blackwell of Oxford. This is, of course, a follow-up to their previous pamphlet, "Genesis of the British National Health Service", in which they attacked with equal vigour the arguments that British medicine was, comparatively speaking, in poor shape until the National Health Service came in. The authors start by looking at the thesis that economic good follows increase in medical expenditure, and find this utterly faulty. Absence from work due to ill-health has not been falling in Britain in recent years and improvement in longevity has also been small after spectacular advances earlier in the century. They point out that in spite of the National Health Service, sickness absence rates among employed civilians appear to be much higher in Great Britain than in the United States; in fact, for recent years they have been more than doubled. Yet among the armed forces of the two countries, where free health services have existed for a long time, absence rates from sickness have been falling and are roughly comparable in the two forces.

The next point taken up by these authors is that a government intent on getting the best outlay for its money would have spent more on items more likely to pay off, such as preventive medicine, labour-saving devices in hospitals and aid to medical education and to medical research. However, these are just the items which have tended to suffer in Britain. Preventive medicine has long been a Cinderella, medical schools are in dire need of expansion, and funds for medical research are considered to be inadequate by many informed observers. Moreover, as the authors point out, these are precisely areas in which the state must play a leading part. The individual can do nothing about these things, whereas he can in many instances in an affluent society pay something towards the cost of his individual medical care.

Finally, they indicate that the National Health Service was never designed as a good economic investment but was born of the doctrine of equality, that all men should have free access to all types of medical care. They promise to examine this argument in a later essay.

MEDICAL EMIGRATION

At last some solid figures are beginning to appear on the question of medical emigration from Britain. So far, there have been two sides to the argument, one suggesting that as many as a third of British graduates go abroad for good, while the other suggests that this estimate is absurdly high. In *The Lancet* for October 26, 1963, Whitfield describes a study of medical emigrants among groups from the Birmingham Medical School. He has approached all the graduates for the years 1948-1958 inclusive and has contrived to gather nearly all the fish into his net. He finds a remarkably even trend in emigration, though with one or two peak years, noticeably the 1952 class. Out of a total of 976 graduates from Birmingham, 100 are abroad and of these only eight are planning to return. Thus 9.5% may be regarded as permanent emigrants, and if the 11 people not working medically are deducted, the permanent loss to the medical services of Britain in this group is 8.3%. However, there seems little doubt that emigration among Birmingham medical graduates is increasing, for there has been a sharp rise in the emigration rate during the last three years.

Out of 100 graduates who emigrated, 22 went to the United States, 24 to Canada, 23 to Australia and 4 to New Zealand, while 23 are in developing countries. It is noteworthy that in the last three years the trend has been towards emigration to Australia rather than Canada or the United States, partly perhaps because Australia requires no further examination.

The emigrés were asked to give a reason for emigration, and almost half the men said that they chose to work abroad because they were dissatisfied with the National Health Service. Others wanted a better climate or wanted to travel or sought better opportunities or were convinced that Europe was in decline, and so on. In commenting on this report, *The Lancet* suggests that these figures reveal a degree of loss of the same order as that for overseas graduates joining the Hospital Service in Britain in senior posts. Thus although Britain has had to pay for the training of its truant graduates, it has been saved roughly the same amount of money by not having to pay for the training of its imported graduates. The writer also hints that if immigration and emigration were to fall badly out of balance, some might advocate a measure of Government control.

THE ENGLISH DISEASE

Chronic bronchitis has for so long been so common in our air-polluted island that it has been referred to as "the English disease". Wood and Meadows of the London School of Hygiene described in the *British Medical Journal* of November 2 an experimental clinic for preventing chronic bronchitis, where they have tried to help patients with early symptoms through a couple of English winters. One of the difficulties was getting

hold of suitable patients, because those with early chronic bronchitis are seldom in touch with the doctor. One good source of patients was industrial medicine and another the mass x-ray unit where patients with a chronic cough or a severe chest cold were referred.

The aims of the clinic were to reduce irritation of the respiratory tract by helping patients to stop smoking and by teaching them how they could reduce damage due to air pollution, to combat infection by the use of influenza vaccine and antibiotics, and to give instruction in correct breathing. Patients were dealt with in groups of 10 to 20 for two hours at evening sessions. After being given some information about their disorder, they received ¾ hr. physiotherapy, conducted with increasing vigour, and took part in a discussion session to promote understanding of their trouble. They were given tetracycline tablets to use at the onset of any exacerbation.

A short-term follow-up indicated that the clinic was fulfilling a need and that the majority of patients were doing their breathing exercises and using antibiotics. However, only 28 out of 77 smokers had stopped smoking altogether.

THE DOUBLE-BLIND TRIAL

Many doctors have a passion for trying to turn their rather "soft" science of medicine into a "hard" science in which everything can be accurately measured and assessed. This fashion occasionally leads them into rather bland acceptance of a method which on the face of it seems impeccable from the physical and mathematical angles, when there are lingering doubts in some minds about the wisdom of accepting such a method wholeheartedly. One of the fetishes of experimental medicine in recent years has been the double-blind clinical trial. The first thing that many editors do now when they receive a manuscript on clinical trials is to see whether a double-blind technique has been used, and one influential editor asserts that he refuses all manuscripts in which this technique has not been used. However, some people wonder whether the pendulum has not swung a little too far and whether the raw data obtained in such trials are really good enough to justify rigorous treatment. Cromie has recently published an article in *The Lancet* of November 9, called "The feet of clay of the double-blind trial", in which he analyses some of the factors which may make such a trial highly suspect. The author may himself be suspected in some quarters because he is associated as a medical adviser with the pharmaceutical industry, but knowledgeable persons will be aware that in countries like Britain, medical advisers tend to lean over backwards in objectivity.

Cromie notes that conclusions are often invalidated by the application of tests of statistical significance to inadequate data and criticizes so-called "objective" trials involving assessment of symptoms such as pain and anxiety in which it is impossible to ignore the subjective element. He also quarrels with the use of fixed dosages of drugs for groups, in view of the well-known variations in the response of individuals, and points out that results obtained with a fixed dosage can only be interpreted as applying to that particular dosage and not to the use of the drug in general. Timing of administration of drugs is often overlooked in clinical trials, though it may be vital in obtaining results, and gross alteration in the mode of presentation of the drug to make a placebo comparison usually means also modifying its action. Too often also, lack of attention to the stability of the patient's environment may invalidate results, and the drug itself may alter the environment and mask its own effect, as when a powerful tranquillizer was given to half the patients in a ward in a double-blind cross-over trial, and was later generally administered to the patients on that ward when the change was reflected in those patients receiving a placebo. Furthermore, effects of previous or additional therapy are sometimes ignored, and the explanation given to patients at the beginning of the trial is not always completely standardized. The degree of sensitivity of a trial may be reduced by using too simple gradings or by defects in assessment. Side-effects during placebo therapy may be indirectly produced by the trial drug because patients are conditioned to symptoms noted by themselves and others.

Lastly, it may be difficult to simulate conditions in which a drug will be used in clinical practice. The author points out that a morning hangover after use of a sedative at night may have little significance for patients in hospital under no pressure to start a day's work and may thus not be detected.

In a comment on this article, Stewart notes that many trials display a complete lack of curiosity about the placebo, whose effect is rarely compared with what happens when no treatment at all is given.

INDIAN HEMP

The Lancet has recently aroused the anger of a bishop by speculating on the possible consequences of removing marijuana from the dangerous drug list and perhaps giving it the same social status as alcohol by legalizing its import and consumption. It seems that this suggestion has been repeatedly raised elsewhere; it would have the merits of reducing, for once, the number of crimes a member of society can commit, and of increasing revenue to the state. *The Lancet* leader writer also suggests that it has the additional merit, by comparison with alcohol, that it induces a passive rather than an aggressive attitude to life and may therefore reduce such troubles as international tension.

However, if the bishop had read further, he would have discovered that the writer also gives a fair account of the objections to making Indian hemp available to everyone. The first is that its pharmacological, psychological and social effects are still practically unknown and we cannot even say as yet whether it improves or impairs mood. He quotes Burroughs as saying that it makes a bad situation worse, turns depression to despair and anxiety to panic. Nor has it any similarity in its effects to those of alcohol, a virtue, in view of the evils with which alcohol consumption can be associated. The writer also demolishes the claim that its use stimulates artistic production, pointing out that although it may enhance artistic ideas, these are seldom put into action afterwards. Lastly, it is not deniable that people have greatly tended to become addicted to drugs when they have easy access to them. Prohibition has been associated with continued abuse of alcohol in the countries in which it has been tried only because alcohol is an easy drug to produce, and the law has failed to make it inaccessible. If prohibition were enforceable there would obviously be no alcoholics or alcoholic cirrhosis, and the road accident rate would fall. On the whole, therefore, governments are probably wise in doing their best to limit the consumption of Indian hemp.

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